

REMARKS

I. General

The following issued were raised by the September 23, 2005 Office Action.

- Claims 11-15, 21-24, and 26-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mukouchi et al. United States Patent Number 6,104,403 (hereinafter *Mukouchi*);
- Claims 16-19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Mukouchi* in view of Bentley et al. United States Patent Number 6,341,291 (hereinafter *Bentley*);
- Claims 20 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mukouchi* in view of Noyama, United States Patent Number 5,594,850 (hereinafter *Noyama*).

Applicant respectfully traverses the rejections of record. Claims 11-28 are currently pending in the present application.

II. Rejections under 35 U.S.C. §103(a)

To establish a *prima facie* case of obviousness, three basic criteria must be met, see M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of the ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Without conceding the first or second criteria, Applicant respectfully asserts that the references fail to teach or suggest all the claim limitations.

A. Claims 11-15, 21-24, and 26-28

Independent claim 11 recites “calculating a reduction in degrees of freedom between said two CAD objects caused by said identified coupling” Likewise, claims 21 and 26

recite “determining a reduction in degrees of freedom caused by said identified coupling ...” The Office Action cites Figures 19 and 24, as well as column 15, lines 33-35, of *Mukouchi* as disclosing an indirect calculation of a reduction in the degrees of freedom. Office Action page 4. However, such calculating or determining is not taught or suggested by *Mukouchi*, and *Mukouchi* may be viewed as teaching away from calculating or determining a reduction in degrees of freedom between two coupled CAD objects.

Mukouchi, at column 15, lines 35-38, states “by virtue of the junction based on the two points...there will not be restricted any rotation around the axis which is a line joining the two [coupling] points 116 and 118” (emphasis and bracketed clarification added). This is further confirmed by Figure 24 which shows that object 114 can rotate 360 degrees after object 114 is coupled to object 112. Thus, *Mukouchi* fails to teach or suggest “calculating a reduction in degrees of freedom between said two CAD objects caused by said identified coupling” as recited by independent claim 11, or “determining a reduction in degrees of freedom caused by said identified coupling,” as recited by independent claims 21 and 26.

Claim 11 also recites “displaying an indication of said reduction in said degrees of freedom in association with the display of said two CAD objects.” Similarly, claims 21 and 26 recite “displaying an indication of degrees of freedom associated with said two CAD objects after application of said identified coupling.” The Office Action cites Figure 24 as displaying the calculated reduction in degrees of freedom. Office Action page 4. However, Figure 24 shows no such reduction. Instead, Figure 24, by virtue of the rotational arrow shown in the upper portion of the Figure, shows object 114 still rotating 360 degrees despite it coupling to object 112. Further, as discussed above *Mukouchi* in column 15, lines 35-38, provides that “there will not be restricted any rotation around the axis which is a line joining the” two objects. Furthermore, as explained above, because *Mukouchi* fails to calculate a reduction in degrees of freedom, *Mukouchi* cannot display a calculated reduction in degrees of freedom.

For at least the above reasons Applicant respectfully asserts that independent claims 11, 21, and 26 recite elements that are not taught or suggested by *Mukouchi*, and which *Mukouchi* may teach away from. Therefore Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections of record of independent claims 11, 21 and 26.

Claims 12-15, 22-24, 27, and 28 depend directly or indirectly from claims 11, 21, and 26 respectively thereby inheriting all the limitations therein. Thus, for at least the reasons stated above, *Mukouchi* fails to disclose each and every element of claims 12-15, 22-24, 27, and 28. Accordingly, Applicant respectfully requests withdrawal of the rejections of record of claims 12-15, 22-24, 27, and 28, as well.

B. Claims 16-19

Claims 16-19 stand rejected under *Mukouchi* in view of *Bentley*. However, claims 16-19 depend directly or indirectly from independent claim 11 thereby inheriting all limitations therein. As explained above, *Mukouchi* fails to teach each and every claim limitation of claim 11, therefore *Mukouchi* fails to teach all limitations of claims 16-19. Furthermore, the introduction of *Bentley* fails to cure the deficiencies explained above. Accordingly, the cited combination fails to disclose all the limitations of claims 16-19, and Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections of record of claim 16-19.

C. Claims 20 and 25

Claims 20 and 25 stand rejected under *Mukouchi* in view of *Noyama*. However, claims 20 and 25 depend directly from independent claims 11 and 21, respectively. Thereby, each of claim 20 and 25 inherits all the limitations of the respective base claim. As explained above, *Mukouchi* fails to teach each and every limitation of claims 11 and 20. Therefore, *Mukouchi* fails to teach all the limitations of claims 20 and 25. Furthermore, the introduction of *Noyama* fails to cure any deficiencies explained above. Accordingly, because the cited combination fails to teach all the limitations of claims 20 and 25, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections of record.

III. Conclusion

In view of the above arguments, applicant believes the pending application is in condition for allowance.

The required fee for this response is enclosed. If any additional fee is due, please charge Deposit Account No. 08-2025, under Order No. 20001670-4 from which the undersigned is authorized to draw.

Applicant respectfully requests that the Examiner call the below listed attorney if the Examiner believes that the attorney can help in resolving any remaining issues or can otherwise be helpful in expediting prosecution of the present application.

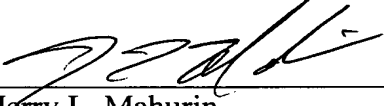
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Date of Deposit: Jan. 4 2006

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